UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,161	03/23/2004	Toshiya Shozaki	018775-884	4323

21839   7590   04/13/2009
BUCHANAN, INGERSOLL & ROONEY PC
POST OFFICE BOX 1404
ALEXANDRIA, VA 22313-1404

EXAMINER
WASHINGTON, JAMARES

ART UNIT	PAPER NUMBER
2625	

NOTIFICATION DATE	DELIVERY MODE
04/13/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 January 2009*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4,5,7,9,10,12,14-16,18 and 20-24* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 2, 4, 5, 7, 9, 10, 12, 14-16, 18, 20-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the fee set forth in

37 CFR 1.17(e), was filed in this application after final rejection. Since this application is

eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e)

has been timely paid, the finality of the previous Office action has been withdrawn pursuant to

37 CFR 1.114. Applicant's submission filed on January 30, 2009 has been entered.

Response to Amendment

Amendments and response received January 30, 2009 have been entered. Claims 1, 2, 4,

5, 7, 9, 10, 12, 14-16, 18 and 20-24 are currently pending. Claims 6, 13 and 19 have been

canceled. Amendments and response are addressed hereinbelow.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

3.   Claims 1, 2, 4, 5, 7, 9, 10, 12, 14 and 22-24 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Yuuichi Bannai et al (US 5267052) in view of Kenneth C. Knowlton (US

4261018).

        Regarding claim 1, Bannai et al discloses an image processing apparatus (Fig. 1 image

communication terminal) which acquires coded data of a plurality of images from an external

recording medium (Col. 5 lines 54-57), wherein the coded data is hierarchically encoded data of

the plurality of images (Col. 5 lines 57-64; see also Fig. 2 which depicts hierarchically encoded

data of a plurality of images), the apparatus comprising:

        an input interface which receives signals from the external recording medium (Fig. 1

numeral 5 communication control unit must have an input interface to connect to the

communication network 12);

        an image input controller (Fig. 1 numeral 5 communication control) which acquires the

coded data by said input interface first only at a first level of hierarchical encoding from the

external recording medium over the plurality of images (Col. 17 lines 67-68 wherein the method

of acquiring data only at a first level is disclosed and easily extendible to the device utilizing

transmission/reception means for moving image data);

        a decoder (Fig. 1 numeral 9) which decodes the coded data acquired by said image input

controller (Col. 6 lines 23-27); and

        a storage device (Fig. 1 numeral 10) which stores data decoded by said decoder (Col. 6

lines 24-30);

wherein the image input controller receives data at a second level of hierarchical

encoding for each of the plurality of images after data acquisition of the data at the first level of

hierarchical encoding is completed (Col. 17 line 67 through Col. 8 line 4 wherein icon (first

level) image data are transmitted first to be subsequently decoded and displayed before/during

reception of the original image data); and wherein the first level includes a lower resolution than

the second level (Col. 2 lines 65-66 wherein the lowest resolution images are adopted as icon

images, therefore the icon must be of lower resolution than the second level data).

Bannai et al fails to explicitly disclose wherein the input controller receives data at a

second level of hierarchical encoding for each of the plurality of images <u>during decoding of the</u>

<u>data at the first level of hierarchical encoding</u>.

Bannai teaches receiving the icon images first because they "have a very small amount of

data" and "it is possible to promptly receive the images and display the images on the display

unit" at Col. 18 lines 1-4. Bannai et al goes on to further teach the receiving terminal may "stop

the transmission from the transmitting terminal before receiving the original". This procedure

does not explicitly teach receiving, decoding and displaying all low-level coded image data

before requesting or acquiring higher-level coded data. The process merely teaches transmitting

and receiving the lower-level coded data before transmitting and receiving the higher-level coded

image data. One or ordinary skill in the art may interpret the above cited portion as; "upon

completing the reception of the lower-level coded image data, the higher level coded data is

subsequently sent and the transmission could be stopped (while being sent) if after the lower-

level coded data is decoded and the index is displayed, the user does not care to receive higher-

level coded data of one of the plurality of decoded icons. This interpretation is well within the
scope of the presently cited portion of the prior art.

Although Bannai et al does not explicitly recite "receiving the second level data during
decoding of the data at the first level", it would have been obvious for a person of ordinary skill
in the art to try the claimed method because it is well within the scope of the cited art.
Furthermore, prior art is not limited just to the references being applied, but includes the
understanding of one of ordinary skill in the art. The prior art reference (or references when
combined) need not teach or suggest all the claim limitations, however, Office personnel must
explain why the difference(s) between the prior art and the claimed invention would have been
obvious to one of ordinary skill in the art. The "mere existence of differences between the prior
art and an invention does not establish the invention's nonobviousness." Dann v. Johnston, 425
U.S. 219, 230, 189 USPQ 257, 261 (1976). The gap between the prior art and the claimed
invention may not be "so great as to render the [claim] nonobvious to one reasonably skilled in
the art." Id. In determining obviousness, neither the particular motivation to make the claimed
invention nor the problem the inventor is solving controls. The proper analysis is whether the
claimed invention would have been obvious to one of ordinary skill in the art after consideration
of all the facts. See 35 U.S.C. 103(a). Factors other than the disclosures of the cited prior art may
provide a basis for concluding that it would have been obvious to one of ordinary skill in the art
to bridge the gap. Examiner feels the gap is bridged because of the lack of a definitive statement
requiring all icon images to have been decoded and displayed before acquiring subsequent higher
level coded data. The cited portion merely suggests that icons which have already been decoded
and displayed may be used to either continue to allow transmission or stopping transmission of

the subsequent higher level coded data for that particular image. Motivation for trying the

concurrent decoding of the lower-level coded data and continuing to acquire higher-level coded

data technique is taught by Knowlton, wherein (Col. 5 lines 25-56) coded data is decoded at the

receiving end while higher-level coded data is being received, which progressively refines the

image or images while saving considerable time. One is also able to abort transmission of those

images not incorporating subject matter being sought.

Regarding claim 2, Bannai et al discloses the image processing apparatus according to

claim 1, wherein the first level of hierarchical encoding is the lowest level (Col. 2 lines 65-66

wherein the lowest resolution images are adopted as icon images).

Regarding claim 4, Bannai et al discloses the image processing apparatus according to

claim 1, further comprising a print engine which prints an image based on data decoded by said

decoder (Col. 8 lines 8-22; The printer as disclosed must have a "prim engine" to be operable as

an output printing device).

Regarding claim 5, Bannai et al discloses the image processing apparatus according to

claim 1, further comprising:

an index maker (Given Fig. 4 and Col. 6 lines 23-32, there must exist an "index maker")

which makes an index image of the plurality of images based on the data at the first level of

hierarchical encoding on the plurality of images (Col. 6 lines 23-32);

a print engine (see rejection of claim 4) which prints the index image received from said index maker (Col. 7 lines 54-56 and Col. 8 lines 3-5);

an operational device (Fig. 1 numeral 2 keyboard) which instructs to make an index to said index maker (Col. 5 lines 42-47); and

a controller (Fig. 1 numeral 1 CPU) which allows to activate said index maker when instructed by said operational device ("In FIG. 1, a central processing unit (CPU) 1 controls the operation of the entire image communication terminal. A keyboard 2 inputs various kinds of operation commands and character code data to the CPU 1" at Col. 1 lines 7-11) after data acquisition of the data at the first level of hierarchical encoding is completed (Col. 5 lines 60-64 wherein the data is stored in memory 7 after the completion of reception. Memory 7 holds encoded image data as described in Col. 6 lines 23-32).

Regarding claim 7, Bannai et al discloses the image processing apparatus according to claim 5, further comprising a display device (Fig. 1 numeral 3) which displays a state of data acquisition of the coded data (Col. 17 lines 59-68 and Col. 18 lines 1-11 wherein the state of data acquisition is displayed in the form of "icon images" before receiving "original" images in their entirety. As stated in the rejection of claim 1, all icon images are not required to be displayed before beginning the data acquisition of the original images) divided by levels of the unit of hierarchical encoding (The reception of the "icon" image before receiving the "original" or higher resolution image reads on divided by levels of the unit of hierarchical encoding).

Regarding claim 9, Bannai et al discloses an image processing method for acquiring coded data of a plurality of images from an external recording medium, wherein the coded data is hierarchically encoded data of the plurality of images (see rejection of claim 1; Image processing apparatus carrying out the method), the method comprising:

acquiring the coded data first only at a first level of hierarchical encoding from the external recording medium over the plurality of images (see rejection of claim 1);

decoding the coded data acquired from the external recording medium (see rejection of claim 1); and

acquiring data at a second level of hierarchical encoding for each of the plurality of images after data acquisition of the data at the first level of hierarchical encoding is completed and during decoding of the data at the first level of hierarchical encoding, wherein the first level includes a lower resolution than the second level (see rejection of claim 1).

Regarding claim 10, Bannai et al discloses the image processing method according to claim 9, wherein the first level of hierarchical encoding is the lowest level (see rejection of claim 2).

Regarding claim 12, Bannai et al discloses the image processing method according to claim 9, further comprising:

making an index image on the plurality of images based on the data at the first level of hierarchical encoding on the plurality of images (see rejection of claim 5);

receiving an instruction by a user to make an index (see rejection of claim 5); and

activating the making of the index image when instructed by the user after data

acquisition of the data at the first level of hierarchical encoding is completed (see rejection of

claim 5).

Regarding claim 14, Bannai et al discloses the image processing method according to

claim 12, further comprising displaying a state of data acquisition of the coded data divided by

the levels of hierarchical encoding (see rejection of claim 7).

Regarding claim 22, Bannai et al discloses the image processing apparatus according to

claim 1, wherein the coded data is compressed data (Suggested at Col. 6 lines 61-63; wherein the

encoder performs entropy encoding using arithmetic encoding which is a form of lossless

compression).

Regarding claim 23, Bannai et al discloses the image processing method according to

claim 9, wherein the coded data is compressed data (Suggested at Col. 6 lines 61-63; wherein the

encoder performs entropy encoding using arithmetic encoding which is a form of lossless

compression).

Regarding claim 24, Bannai et al discloses the computer readable recording medium

according to claim 15, wherein the coded data is compressed data (Suggested at Col. 6 lines 61-

63; wherein the encoder performs entropy encoding using arithmetic encoding which is a form of

lossless compression).

4.   Claims 15, 16, 18, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Bannai et al in view of Knowlton and Hiroshi Kajiwara (US 6985630 B2).

        Regarding claim 15, Bannai et al discloses the method as rejected in claim 9 above.

        Bannai et al fails to explicitly disclose a computer readable recording medium which

records an image processing program for implementing the method of claim 9 above.

        Kajiwara, in the same field of endeavor, teaches the use of a computer readable recording

medium which records an image processing program for carrying out computer implemented

methods in an image processing apparatus (Col. 18 lines 15-21).

        It would have been obvious to one of ordinary skill in the art at the time the invention

was made for the method performed by the image processing apparatus as disclosed by Bannai et

al to utilize a computer readable recording medium which records an image processing program

so a computer or an apparatus may read and execute the program code stored to realize the

functionality of the hardware.

        Regarding claim 16, Bannai discloses the computer readable recording medium

according to claim 15 (see rejection of claim 15), wherein the first level of hierarchical encoding

is the lowest level (see rejection of claim 10).

Regarding claim 18, Bannai discloses the computer readable recording medium according to claim 15 (see rejection of claim 15 for computer readable recording medium), the program further comprising:

making an index image on the plurality of images based on the data at the first level of hierarchical encoding on the plurality of images (see rejection of claim 12);

receiving an instruction by a user to make an index (see rejection of claim 12); and

activating the making of the index image when instructed by the user after data acquisition of the data at the first level of hierarchical encoding is completed (see rejection of claim 5).

Regarding claim 20, Bannai et al discloses the computer readable recording medium according to claim 18 (see rejection of claim 15 for computer readable recording medium), the program further comprising displaying that an image can be printed after data at the second level of hierarchical encoding is acquired for the image (Col. 18 lines 25-30 wherein an icon image is selected and the original image is displayed and may be printed in accordance with an indication from a keyboard), and of outputting the image based on the data acquired on the image when instructed by a user (Col. 18 lines 25-27 wherein an icon is selected and the original image is displayed).

Regarding claim 21, Bannai et al discloses the computer readable recording medium according to claim 18, the program further comprising displaying a state of data acquisition of the coded data divided by the levels of hierarchical encoding (see rejection of claim 14).

Response to Arguments

5.   Applicant's arguments with respect to claims 1, 9 and 15 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

David L. Sprague (US 5699458)

Habib H. Torbey (US 4858017)

Michael Gormish (US 20040175046 A1)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMARES WASHINGTON whose telephone number is (571) 270-1585. The examiner can normally be reached on Monday thru Friday: 7:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, King Poon can be reached on (571) 272-7440. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/King Y. Poon/
Supervisory Patent Examiner, Art Unit 2625

/Jamares Washington/
Examiner, Art Unit 2625

/J. W./
Examiner, Art Unit 2625

April 2, 2009